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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,020

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EXAMINER

ALI, MOHAMMAD M

ART UNIT

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3744

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/521,020	<b>Applicant(s)</b> MIZUTANI ET AL.	
	<b>Examiner</b> MOHAMMAD M. ALI	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 5-7, 11 and 12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-7, 11 and 12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claim 7 is rejected under 35 U.S.C. 102 (a) as being anticipated by Unezake ET al (JP 2002-357377 A). Unezake et al disclose an air conditioner comprising existing refrigerant piping (4, 6) that was an existing air conditioner (See Fig 12) and contains residue of an existing of an refrigerant oil, a heat source unit (11, 28) and an user unit (23 evaporator/interior unit Fig. 12) that are connected together by the existing refrigerant piping (4, 6) with a replace working refrigerant disposed therein; and an oil collecting device 9 that is configured such that after the existing refrigerant oil has been changed and before the refurbished air conditioner is run in a normal operating mode, the oil is collecting device 9 can draw in the replaced working refrigerant that is being circulated through the air conditioner and separate the existing refrigerant oil that is carried with the replaced working refrigerant, the replaced working refrigerant being an HFC refrigerant at least wt% of 32 See Figs. 12, 13, 22-23, 25 and 27 and the translation. See also Para [0027] of machine translation. Regarding containing HFC refrigerant containing at least 40 wt% of R32 that serves as a cleaning agent but containing no R134a refrigerant is a cleaning agent which being intended use as a cleaning agent by the Applicants. However, the refrigerant/cleaning agent R32 with at least 40 % without R134a is a well known refrigerant in the market and therefore bears

no patentable weight on it. For evidentiary reference see column 1, lines 41-42 of US Patent 5,495,057 to Nam et al. It clearly indicates that Unezake et al is capable to use R32 with at least 40 wt% without R134a as a cleaning agent having no obligation to invent the cleaning agent.

Regarding claims 7 the above disclosure of Unezake et al discloses the limitations of claim 7.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 7 is rejected under 35 U.S.C. 102 (b) as being anticipated by Taira ET al (US 5,806,329). Taira et al disclose an air conditioner comprising existing refrigerant piping (16, 17) that was an existing air conditioner and contains residue of an existing of an refrigerant oil, a heat source unit (A) and an user unit (18/50 indoor heat exchanger/control unit) that are connected together by the existing refrigerant piping (16, 17) with a replace working refrigerant disposed therein; and an oil collecting device 12 that is configured such that after the existing refrigerant oil has been changed and before the refurbished air conditioner is run in a normal operating mode, the oil collecting device 12 can draw in the replaced working refrigerant that is being circulated through the air conditioner and separate the existing refrigerant oil that is carried with the replaced working refrigerant, the replaced working refrigerant being an HFC refrigerant at least wt% of R32 See Fig.s1, column 5, line 1 to column 6, line 20. Regarding use of R32 refrigerant containing at least 40 wt% of R32 but containing no

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R134a. Taira et al's refrigerant system is using a washing agent to conduct washing operation. R32 refrigerant containing at least 40 wt% having no R134a refrigerant is well known and available in the market as disclosed by Name et al in US Patent 5,495,057, column 1, lines 41-42 as discussed above Taira et al is capable of using the R32 with at least 40 wt% without having R134a as a washing agent to wash the existing refrigerant circuit..

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5-6, 11 and 12 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Unezaki et al (JP 2002-357377 A) in view of Nam et al (US 5,495,057). Unezaki et al disclose the invention substantially as claimed as stated above except R32 refrigerant containing at least 40 wt% having no R134a refrigerant. See Figs. 12-13, 22-23, 25 and 27 and the translation. Specifically see Para [0027].

Regarding use of R32 refrigerant containing at least 40 wt% of R32 but containing no R134a is well known and available in the market as disclosed by Nam et al in US Patent 5,495,057, column 1, lines 32-47.

Nam et al teach the use of HFC-32, HFC-125 and HFC-134a in a combination of HFC-32 (R32) and HFC-125 (60/40 wt. %, see column 1, lines 43-44) for the purpose of using a refrigerant which is environmental friendly and do not destructure or destroy the Ozone layer. Regarding using a new heat source, Unezaki et al though not using a new heat source, the function would be the same as Unezaki et al is doing with an old heat sink. Therefore, it is an obvious choice of an individual skilled in the art to use an old or a new heat source since there is no criticality or unexpected result from it.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the air conditioning system of Unezaki et al in view of Nam et al such that a mixture of HFC-32(R32) and HFC-125 containing 60/40 wt. % having no R134a refrigerant could be provided in order to protect the Ozone layer to make a friendly environment.

Regarding claim 11, the above combined disclosure of Unezaki et al and Nam et al disclose the limitations of claim 7.

Regarding claims 6, and 12, during washing of existing refrigerant piping, the new working refrigerant or replaced refrigerant as discussed inherently circulates in a wet state through the existing refrigerant line.

Claims 5-6, 11 and 12 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Taira et al (US 5,806,329) in view of Nam et al (US 5,495,057).

Taira et al disclose the invention substantially as claimed as stated above except R32 refrigerant containing at least 40 wt% having no R134a refrigerant. See Fig.s1, column 5, line 1 to column 6, line 20.

Regarding use of R32 refrigerant containing at least 40 wt% of R32 but containing no R134a is well known and available in the market as disclosed by Nam et al in US Patent 5,495,057, column 1, lines 32-47.

Nam et al teach the use of HFC-32, HFC-125 and HFC-134a in a combination of HFC-32 (R32) and HFC-125 (60/40 wt. %, see column 1, lines 43-44) for the purpose of using a refrigerant which is environmental friendly and do not destructure or destroy the Ozone layer. Regarding using a new heat source, Taira et al though not using a new heat source, the function would be the same as Unezaki al el is doing with an old heat sink. Therefore, it is an obvious choice of an individual skilled in the art to use an old or a new heat source since there is no criticality or unexpected result from it.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the air conditioning system of Taira et al in view of Nam et al such that a mixture of HFC-32(R32) and HFC-125 containing 60/40 wt. % having no R134a refrigerant could be provided in order to protect the Ozone layer to make a friendly environment.

Regarding claim 11, the above combined disclosure of Taira et al and Nam et al disclose the limitations of claim 7.

Regarding claims and 6, and 12, during washing of existing refrigerant piping, the new working refrigerant or replaced refrigerant as discussed inherently circulates in a wet state through the existing refrigerant line.

### ***Response to Arguments***

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Applicant's arguments filed 04/13/10 have been fully considered but they are persuasive for method claims 5-6 and 11-12 but are not persuasive for apparatus claim 7. (This has also supported by the Conferees of the Pre-Appeal brief Conference). The Applicants argue that the Unezake et al publication makes no mention of HFC refrigerant containing at least 40 wt% of R 32 but containing no R 134a as well as the other features of the independent claim 7. The Examiner disagrees. Unezaki et al disclose the claimed invention substantially as explained above including using R32 refrigerant as the washing agent (see Para 0044) and therefore Unezake et al capable to use R32 with at least 40 wt% having no R134a refrigerant (For evidentiary reference see column1, lines 43-44 of US Patent 5,495,057 to Nam et al) which is simply equivalent the refrigerant circuit after recovery of Unezake et al. The Unezake circuit is being reused as a new heat source with new refrigerant. The using of washing agent of Unezaki et al one of a washing agents known in the market. Unezaki et al is invariably capable of using all possible washing agents including the washing agent containing R32 without any R134a refrigerant with at least 40 wt. %.



The same is the equally applicable with Taira et al recovery device. Therefore, the above argument of the Applicants is not correct and thus the rejections are ok.

However, the Examiner reviews the rejection as per suggestion of the appeal conferees and rejected on a new ground of obvious type rejection for method claims 5-6 and 11-12.

Regarding, Unezaki et al and Taira et al do not disclose a new heat source. The Unezaki et al and Taira et al are capable use a heat source whatever kind of they are either new or old, Both Unezaki et al and Taira et al are capable to use any kind of heat source including a new heat source to conduct the same kind of washing procedure or method as they are doing now.

Therefore, Applicant's argument with respect to claims 5-6 and 11-12 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD M. ALI whose telephone number is (571)272-4806. The examiner can normally be reached on Monday through Thursday from 8.30 am to 12 Noon and from 1 pm to 5.30 pm and on Friday from 6 am to 11.30 am and from 2.30 pm to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mohammad M Ali/  
Primary Examiner, Art Unit 3744